> The potential for *asbestos containing material* to exist within buildings (roofing, lining and electrical fixtures/ panels) on the site should be identified within *Table 3: Typical components of construction and demolition materials.*

4.15 Environmental Risk Assessment

4.15.1 Summary of changes from 2012 to revised 2013 EA

The approach undertaken of identifying and assessing the potential environmental impacts and providing a risk rating remains largely unchanged between the 2011 and 2013 EAs. There were also no changes in any of the risk categories or assessed levels of risk either, with only the inclusion of a reference to a BOS added to the 2013 EA.

4.15.2 Cardno Assessment

Many of the comments provided in the previous Cardno review of 2011 EA submission have not been addressed and are therefore still relevant.

Overall, the environmental risk analysis submitted by the applicant lacks detail and there is limited assessment on the cumulative impacts of the subject development and the Commonwealth Government's proposal. Our assessment is summarised as follows.

> Further justification is required as to why the risk of increased traffic impact on Transport and Access risk was not assessed as 'Very High' both before and after mitigation. Using the risk assessment likelihood criteria of 'A' (Almost Certain) and consequence criteria of '4' (Major) or '5' (Severe) would both result in a 'Very High' risk ranking, which still seems more appropriate considering the potential long term and increasing impact on the broader community as the terminal grows.

> The risk of increased traffic impact on local roads and rail is still described as 'High' even after mitigation measures are applied. The principal mitigation measures proposed all require additional studies to be undertaken. Also, some amended access plans for site access and M5 access points and some additional transport modelling has been undertaken, it is recommended that these studies need to provide more specific analysis on what impacts the development will have on future car and truck traffic on roads within the Liverpool LGA, as well as those outside of the core project area which may still be affected. This clarification should be made available for review before the EA is determined.

> More detail should be provided in relation to risk of damage to road pavements and the consequences, not only in the core project area but also in the other areas which will experience increases in heavy vehicle traffic movements, which include

- Reduction in level of service at road intersections outside of the core project area
- Increased maintenance or upgrade costs for upkeep of connecting roadways
- Information on who will be responsible for any additional maintenance and/or upgrade costs.

> Broad trip generation assumptions used in traffic modelling will introduce errors that ultimately skew trip generation results used to assess traffic network performance. This also introduces a risk of error for other areas of impact assessment such as noise and air quality which has not been identified or discussed.

> We note that the title of Table 3 in the *Environmental Risk Analysis* (Hyder, [h], 2013) is still showing the incorrect heading and should refer to "Criteria for evaluating consequence" and not "Criteria for evaluating likelihood".

> Air quality risk is shown to be reduced from 'Very High' to 'Medium' by the application of an Air Quality Management Plan. Justification for this needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin.

- The above point is also exacerbated if air quality impacts are under-estimated, if, as identified by the review of the traffic assessment (**Section 4.1**), the traffic movements associated with the facility have been under-estimated. The Traffic Assessment undertaken by Cardno considered the traffic movements to be substantially above those identified in both the 2012 and 2013 EAs, with air quality impacts correspondingly higher.
- The community is still highly concerned by how this project will impact on them and the potential risks to their amenity and safety. Disruption to the community during construction is shown to be reduced from 'Very High' to 'Medium' by the application of Community Consultation and Involvement Plan. Better justification needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin.
- There is only limited consideration to how cumulative impacts have been incorporated into the risk assessment. In particular, what other developments are planned or known i.e. the neighboring MIT site?
- There is still no discussion or information on who has responsibility for implementing the identified control measures. This is of particular relevance where infrastructure upgrades are required (For example in rail, road or intersection upgrades). Each mitigation or control measure needs to have a responsibility assigned, with indicative costs identified to ensure that adequate funding is in place prior to approval. Responsibility should consider both responsibilities for implementation and for funding provision.
- The risk assessment has identified a range of threatened flora species in the study area and has identified that an offset strategy should be developed to offset these species. It appears that there have been no changes to the rail alignment design through this area as a means to minimize impacts on listed endangered species, which would be a preferred measure to reduce the risk of impacts on significant flora and fauna. As this impact avoidance measure does not seem to have been utilised in the concept development then the residual risk should remain higher than 'Low'.

With regard to the risks, the following comments are provided:

Table 4-1 Review of Identified Risks and Hazards

Issue	Comment
Transport and Access	Additional potential impacts that need consideration within the assessment include: ▪ Increased accident rates ▪ Exceeding road capacity ▪ Pavement Failure ▪ Increased traffic on local and residential roads ▪ Decreased access to existing properties ▪ Financial burden on external parties for upgrade works and/or maintenance activities required ▪ Bringing forward upgrade works and costs. It is critical that control measures relating to the transport network (i.e. increased maintenance regimes or upgrades) need to give some consideration to who is responsible for implanting them and how will they be funded, e.g. how will the Section 94 Development Contributions Plan be applied and how will funding contributions be agreed? The accuracy of assumptions used in the traffic and transport modelling is a significant risk item which also has far reaching implications on other studies (noise, air quality and GHG).
Noise and Vibration	Consequences of cumulative noise impacts are recommended to be reassessed for all receivers on the basis of clarified and coordinated input data, for example peak output on both SIMTA and MIT sites, as well as site generated road traffic.
Biodiversity	It is suggested that until the final rail route alignment positioned to minimise disturbance to significant flora and fauna. Until a final route has been confirmed and reassessed, then there is no reason that a preliminary risk assessment can reduce risk from 'Medium' to 'Low' by the proposed 'avoidance' mitigation measure. The location and presence of suitable biodiversity offset sites are still not identified

	and are therefore a residual risk exists that suitable offset areas exist. The acceptability of biodiversity offset sites will need further investigation and discussion with the OEH until a decision can be made this project. Any EPBC Act listed species which may be impacted by the proposal need to be reviewed and included in the BOS. Impacts on surrounding flora and fauna adjacent to the SIMTA site need to be considered during both the construction and operational phases of the project.
Greenhouse Gas/Utilities	No assessment of the potential for onsite renewable energy generation to offset the project GHG emissions is provided. An additional control measure of using onsite generation of renewable energy to offset the net increase in GHG emissions should be required as an approval condition. (It is also noted that the installation of solar panels on warehouse roofs will be more cost effective at the time of construction than as a later retrofit) This may also reduce the level of risk assigned to the "utilities" category. The consequence of work within the rail corridor has not been considered within the GHG assessment and therefore this increases the risk of impact.
Air Quality	Risk is shown to be reduced from 'Very High' to 'Medium' by the application of an Air Quality Management Plan. Justification needs to be provided as it is unclear what practical measures are available to reduce the risk by this margin. Air quality impacts will be under-estimated, if, as identified by the review of the traffic assessment (**Section 4.1**), the traffic movements associated with the facility have been under-estimated. The Traffic Assessment undertaken by Cardno considered the traffic movements to be substantially above those identified in both the 2012 and 2013 EAs, with air quality impacts correspondingly higher. The risks associated with the potential storage or handlings of refrigerated or frozen materials or odorous materials need to be discussed if these types of goods are to be present on the site. There is a risk that future increases in throughput capacity, above the 1 million TEUs spread across the SIMTA and MIT facilities, will increase the risk of impacts as the current assessment only covers this level of throughput.

4.15.3 Recommendations

> At this stage of the project, a detailed construction plan, detailing phases of work, plant and equipment is not be available, therefore assumptions regarding traffic impacts. It is considered that further ongoing detailed risk assessments would be undertaken during later, detailed design stages of the project.

> The risk of incorporating inaccurate traffic data (baseline and forecast) needs to be considered to ensure there is consistency and accuracy of impact assessments between specialist studies including traffic, air quality, GHG and noise.

> The following documents are still identified as being control measures to manage transport and access risk. As key documents in controlling a major project risk, they should be provided prior to the EA being determined:

- Detailed transport and accessibility impact assessment (broadened to consider cumulative impacts and area outside of core project area);
- Traffic management plan;
- Detailed strategic and project modelling of the rail network and infrastructure is required to understand capacity, pathways inform any upgrade and maintenance requirements upstream and downstream from core project area).

> Each mitigation or control measure needs to have a responsibility assigned as this imparts a potential financial risk and liability onto third parties, with indicative costs identified to ensure that adequate funding is in place prior to approval. Responsibility should consider both responsibilities for implementation and for funding provision.

> Activities proposed within the rail corridor, including vegetation clearance should be documented and fully assessed within the air quality, noise and GHG assessments.

> Justification of how a Community Consultation and Involvement Plan will reduce the risk of community impacts during construction from 'Very High' to 'Medium' is required.

> The risks arising from potential cumulative impacts need to be considered and addressed.

4.16 Consultation

4.16.1 Summary of changes from 2012 to revised 2013 EA

Additional consultation has been undertaken prior to the submission of the 2012 EA. The additional consultation appears largely directed towards DP&I and SEWPaC with no additional community consultation undertaken, however a consultant (Elton Consulting) has been engaged to monitor media outlets on SIMTA's behalf in order to respond to new emerging community concerns.

Continued consultation with SEWPaC resulted in the development of a draft EPBC EIS to meet the assessment and approval requirements of the EPBC Act. This draft EIS was placed on public display on the 13 June 2013.

Additional consultation with DP&I constituted further meetings to allow SIMTA to fully understand the issues raised by DP&I and other stakeholders so that they could be addressed in the 2013 EA.

The Social Impact Commentary (SIC) has been expanded to include a review of a greater number of documents as well as additional information in the demographic profile and potential social impacts and benefits.

The *Community and Stakeholder Consultation Outcomes Report* (CSCOR) (Elton Consulting, 2013) has also been amended since the 2012 EA. The document now includes a changed purpose, with original purpose of the consultation to guide the level of technical assessments required in the EA. The current purpose of the consultation process is now more general with a clear statement that the issues raised in the CSCOR "*have been addressed during the preparation of technical studies included within the Environmental Assessment*" (Elton Consulting, 2013). A higher level of detail has also been provided throughout the 2013 CSCOR in regards to the issues raised during consultation and the detail of the responses.

4.16.2 Cardno Assessment

The following issues were raised in regards to the consultation methodology during the review of the 2012 EA and are still applicable:

> The issue/response matrix reads like a prepared frequent questions and answers (FAQs). As such it is unclear who was consulted and what their concerns were.

> The Community Information Centre (CIC) was located 7kms from SIMTA site and situated off the main Liverpool centre with irregular opening times (two or three days a week). The location of the CIC is not easily accessible to the community and this does not encourage community participation.

> It is difficult to determine the overall level of community support for or against project. Negative media reports and complaints made to Council indicate a very high degree of concern of residents from this proposal.

> The outcomes of the report do not indicate geographical areas of resident concerns and is difficult to ascertain the level and type of concern by location.

> The report does not discuss the potential for cumulative impacts resulting from the Federal Intermodal proposal.

> Continued negative media coverage indicates that the community consultation process has not been successful in building long term relationships with community or the proponent's reputation in the community.

The 2013 EA states that the CIC has not been visited by the community since the exhibition of the previous 2012 EA. As no additional visits to the CIC have occurred this indicates a lack of willingness to promote the project by SIMTA and reinforces the above comments relating to the inaccessibility of the CIC. Consequently, it appears that the community consultation has failed to successfully engage the community.

The following comments were made in regards to the issues raised in a review of the 2012 EA and also appear to still be relevant:

> No analysis of the hierarchy of issues/complaints is provided in the report which makes it difficult to assess the level of concern by issues. This hierarchy of issues may elucidate which issues are of most concern to residents.

> No evidence that community ideas and input has been incorporated into submitted concept application and overall project design.

Additional review of the 2013 EA has also identified that the area in which community consultation is undertaken is not adequate or representative of the community which will be impacted upon by the proposal. The community consultation area should be expanded to include:

> The suburbs of Glenfield and Macquarie Fields, which are located along the route of Cambridge Avenue and connecting roads that will receive increased traffic as a result of the proposal

> The surrounding suburbs of Prestons, Lurnea, Liverpool and Chipping Norton, which are likely to utilize areas which will be impacted by increased traffic flows as a result of the proposal.

Whilst the DGRs provide a list of relevant parties in which consultation should be undertaken, it is noted that the DGRs state that project consultation should be "not limited to" this list. Cardno note a number of other relevant parties which should be directly consulted with throughout the refinement of this EA which have not been mentioned in the consultation of this project. These include:

> The NSW Office of Water (NOW)

> The Georges River Combined Councils Committee (GRCCC)

> Fairfield City Council (FCC)

> Bankstown City Council (BCC)

> Campbelltown City Council (CCC)

> Hawkesbury Nepean Catchment Management Authority (HNCMA)

> NSW Department of Primary Industries (DPI)

4.16.3 Recommendations

Further community consultation is undertaken prior to the determination of this project. Further communication should include:

> Demonstrated consultation with a culturally and linguistically diverse background

> Relocation of the CIC to a more appropriate and more accessible location

> An increase in the opening hours of the CIC to allow access by a greater range of residents

> A residential survey to actively obtain the views of the surrounding residents

> Delivery of the letter to residents to a greater area including the residents in suburbs such as Prestons, Lurnea, Liverpool and Chippy Norton, who will also be impacts by the proposal

> Direct consultation with a greater list of agencies such as those described above

The EA and associated reports should be amended as additional consultation in undertaken and additional issues are raised.

4.17 Statement of Commitments

4.17.1 Summary of changes from 2012 to revised 2013 EA

The Draft Statement of Commitments (SoC) has changed considerably throughout all areas of the SoC between the 2012 and 2013 EA, with the exception of the area of waste management which has remained the same. Due to the extent of changes in this section of the EA Cardno has reviewed this section independently of the corresponding section in the previous EA.

4.17.2 Cardno Assessment

The DGRs states that:

"*5. A **draft statement of Commitments (SoC).** The SoC must incorporate or otherwise capture measures to avoid, minimize, manage, mitigate, offset and/or monitor impacts identified in the impact assessment sections of the EA and ensure that the wording of the SoC clearly articulates the desired environmental outcome of the commitment. The SoC must be achievable, measurable (with respect to compliance) and time specific, where relevant."*

The draft SoC provided in the 2013 EA has been found to be neither measurable nor time specific. These parameters need to be added to the SoC in order to ensure that monitoring and compliance in line with these commitments is possible.

Development and Staging

Whilst the SoC provides commitments to undertake a number of Plans and follow a select few key design criteria, the SoC does not commit to a defined pathway of development and staging. To provide clarity to government assessors the EA should outline in detail the proposed pathway of the project, the stages defined through this pathway and a clear list of commitments which will be adhered to during each stage. These commitments should be more comprehensive than those outlined in the Development and Staging section which are just a select few design criteria and plans which will be used to guide the development. Additional design criteria which should be incorporated into the commitments include:

> All sites designs are to meet the relevant Australian Design Standards

> Railway designs are to be approved and accredited by the NSW Rail Infrastructure Manager (RIM)

> Lighting design is to be undertaken with minimal visual impact to surrounding areas

> The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provided by the landscape design.

The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Transport and Access

The Transport and Access SoC defines a number of negotiations to be undertaken with relevant authorities in regards to upgrading the local road networks and intersections. The SoC does not however, define a commitment to undertaking this work, funding this work or management of this work to be undertaken as part of the SIMTA project. The timing of the road upgrades is also not defined and should be included to ensure an adequate road network is available prior to the operational phase.

The SoC commits to encouraging the use of public transport by the employees but should also commit to adjusting staff shift times so that they do not overlap with peak traffic periods.

A commitment has been made in the SoC to undertake an actual truck trip generation survey 24 months after the commencement of operations. This period should be reduced to 12 months to ensure operations are not ongoing without adequate facilities to support the operation.

A commitment should be made to limit the total number of truck trips which will be undertaken on a yearly basis. This will ensure that impacts in the road network system are capped and can be adequately assessed in during the EA process.

An intersection performance survey which includes the modelling of traffic produced as a result of adjacent land uses should be listed in the SoC. This will ensure the cumulative traffic impact is identified and assessed.

The EA should make a commitment that no empty containers will be taken offsite with the exception of by rail. This will ensure that the road network is not used unnecessarily at this location.

Noise and Vibration

The noise and vibration commitments define ongoing monitoring throughout the project design, construction and operational phases. The frequency and timing of this monitoring is not however defined and should be outlined in the commitments so that the Proponent is accountable for this monitoring regime.

The SoC discusses considering less noise intense activities in certain locations within the site however, does not commit to this noise sensitive layout. Specific design principles based on the noise assessment should be included in the SoC.

The 2013 EA defines the use of electric/hybrid plant equipment however a commitment has not been made to ensuring this is followed. The type and quality of the equipment used as well as the projected number of diesel trains should also be defined in the SoC so that defined thresholds are maintained on site and noise criteria are not exceeded.

Health

The health SoC defines the commitment to undertake further health assessments for lodgement with each major stage in the development. The SoC does not make any commitment to maintain a certain level of health impacts as a result of the works nor does it define mitigation measures which will be undertaken in order to reduce the impacts of the proposal on the health of the onsite employees and the surrounding community. The addition of this commitment is needed to ensure that proposal is designed and undertaken with the objective of minimising health impacts.

Biodiversity

The biodiversity commitments do not define any measurable commitments which will be maintained through the construction and operation of the project. This section simply states the potential impacts and whether the impacts will be avoided, mitigated, managed or offset. The EA does not define how these actions will be undertaken, during what time frame and how these actions will be measured against to determine if the utilised measure is successful or adequate.

A commitment to undertake ecological monitoring has not been included within the SoC. Ecological monitoring would allow the impacts of the proposal on the surrounding biodiversity to be determined throughout the project and would determine if the employed mitigation measures are adequate.

Contingency measures are an important management tool which has not been included in this SoC. Contingency measures would allow the authorities to determine thresholds of impacts in which the project could operate to ensure the protection of threatened plant such as *G. parviflora subsp. parviflora* and *P. nutans* which will be placed at risk as a result of this proposal. Contingency measures would provide steps which would need to be taken if certain levels of impacts are exceeded and would allow for accountability by the proponent.

Hazard and Risks

The SoC defines the commitments to undertake management plans for the risk of removal of asbestos from the site, a Preliminary Hazard Assessment for dangerous goods, a Hazard and Risk Management Plan and Emergency Response Plan, a Construction and Operational Management Plan including the management/mitigation of spills, as well as undertaking a Bushfire Management Plan in conjunction with Rural Fire Service principles.

In addition to these commitments a Strategic Project Modelling and assessment should be undertaken in order to provide a greater understanding of the potential impacts of the proposal on local and regional rail network as well as understanding the capacity of the road and rail network and the condition of this infrastructure. The required upgrade and maintenance scope for such infrastructure should also be determined in this assessment as well as the responsible body for any additional maintenance regimes and the funding of any such upgrades or maintenance requirements. The assessment and strategic modelling should also work to identify the impact of the proposed project on the greater road and rail network and the stakeholders of this network.

The management and mitigation of any offsite impacts as a result of the project's supporting infrastructure requirements also requires consideration and commitment by the Proponent. This includes the incidence of traffic accidents involving a truck traveling to or from the project site. A Drivers Code of Conduct for truck drivers using the site would work to substantiate this commitment and used in conjunction with a site induction process for drivers will ensure that drivers are aware of community expectations of driver behavior, truck condition as well as what procedures are in place in the event of an offsite incident.

The Drivers Code of Conduct should also form part of a transport management system to ensure site rules and emergent issues are regularly communicated with transport companies and incidents or near misses are reported accordingly.

A SoC should include an annual independent audit of any Event Management System which is in place across the site, and should also include any Environmental Management System.

Contamination

The Contamination commitments consist of a number of tasks which will be detailed within the stages planning applications for the SIMTA project. These tasks include further investigations into the areas of environmental concern, development of a Contamination Management Plan and undertaking Phase 2 intrusive environmental assessment of the proposed rail corridor.

The SoC does not detail the undertaking of any further assessments within the SIMTA site. A commitment to undertake further investigations to confirm past findings should be outlined in the SoC as further design detail is developed across areas which have been identified as areas of concern within the Phase 1 contamination assessment.

Stormwater and Flooding

The SoC defined Stormwater and Flooding commitments including the preparation of a Soil and Water Management Plan and Erosion, Sediment Control Plan and Flood Emergency Response Plan. The SoC should also include a commitment to coordinate stormwater abatement design with the MIT proposal, with specific as opposed to general mitigation measures provided.

Air Quality

The air quality commitments defines the development of a vehicle efficiency and emissions reduction program, Construction Environmental Management Plan and Greenhouse Gas Management Plan, as well as the undertaking of further air quality monitoring including nuisance dust, PM10 and Nitrogen Dioxide. Ozone and VOC's should be assessed and if necessary added to this monitoring commitment.

The use of refrigerated containers has not been defined within in EA. If refrigerated containers will not be transported on site then this should be defined in the SoC. If refrigerated containers are to be transported on

site then a commitment should be made to undertake additional assessments to assess the potential air quality impacts of this. Based on the results of this assessment, monitoring commitments can also been included in the SoC.

Heritage

The heritage SoC consists of a number of general and site specific mitigation measures for Indigenous Cultural Heritage, which have been largely reflected in the SoC. However, the recommendations contained in the Non-Indigenous heritage study have not been fully translated to the SoC. These recommendations should be reflected in their entirety within the SoC.

The required SoC for this EA is hard to define based on the low level of indigenous heritage investigations which was undertaken. Whilst the need for test-pits is identified in the SoC, if this information was already available then specific measureable SoC's could have been developed. Due to this lack of information, the indigenous SoC should include a commitment to define specific monitoring objectives throughout the construction phase of the project to ensure appropriate mitigation measures are employed to protect the surrounding indigenous heritage values.

The non-indigenous heritage SoC does not define a specific commitment to protect and preserve the heritage value of the WWII sites where possible. The EA provides very little details of the proposed removal or relocation of these buildings, which should be defined in the SoC, to ensure the value of these buildings are maintained as much as possible. The preservation of these structures should also be defined through a commitment to undertake ongoing monitoring and management of these structures.

Visual and Urban Design

The SoC defines the preparation of a Landscape Management Plan which will utilise a number of objectives and design principles as outlined in the SoC. The design principles describe the use of a landscaped buffer zone on the southern and eastern boundaries. The design principles do not however, describe the type of landscaping which will be used, or the height of the trees. Due to the proposal resulting the stacking of mostly brightly coloured containers, the SoC should commit to the planting of species with an approximate height greater than that of the desired stacking height of the containers. The commitments should also define a buffer along the northern boundary of the site as visual impacts to surrounding residents occur from the northern boundary.

The SoC should define a maximum height which will occur on site. This height should be based on the ability for screening around that part of the site with highly visible areas, such as the north east corner of the site, having a maximum height of a reduced amount to minimise the impacts on the neighbouring residents.

The Landscape Management Plan, as defined in the SoC, should dictate the use of warehouse massing diagrams to demonstrate the proposed layout of the containers and relevant maximum stacking heights. This diagram would then be utilised as a master plan for the warehouse layout to ensure that relevant stacking heights are not exceeded.

Utilities

The utilities section of the SoC defines actions which will be undertaken by the Proponent to investigate and protect existing services as well as a commitment to obtain appropriate authorisations for sourcing water. The EA does not describe the requirement of utilities to support the proposed rail infrastructure. The use of these utilities will need to meet rail standards as well as will be required to connect with the existing rail network.

A commitment to undertake the management and construction of these rail utilities in conjunction with the appropriate rail authority should be required in order to ensure works are completed to the required standards and connection with the existing network does not cause any disruption to existing operations.

Consultation

The Proponent has committed to continue to undertake consultation with a number of government authorities and bodies as well as continuing to engage and consult with the community. In addition to the commitments identified in the SoC, details of the Community Information Centre should be included such as opening hours and advertisement of the centre. Consultation with the ARTC should also include negotiations into maintenance and upgrade requirements of the rail network and the relevant funding body for these works.

4.17.3 Recommendations

Based on the review of the SoC and the EA as a whole, the following inclusions are recommended within the SoC:

Development and Staging

> Include a defined pathway of development and staging; including a clear list of commitments for each stage of the development.

> Additional design criteria should be incorporated including:

- All sites designs are to meet the relevant Australian Design Standards
- Railway designs are to be approved and accredited by the NSW Rail Infrastructure Manager (RIM)
- Lighting design is to be undertaken with minimal visual impact to surrounding areas
- The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provide by the landscape design.

> The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Development and Staging

> Include a defined pathway of development and staging; including a clear list of commitments for each stage of the development.

> Additional design criteria should be incorporated including:

- All sites designs are to meet the relevant Australian Design Standards
- Railway designs are to be approved and accredited by the NSW Rail Infrastructure Manager (RIM)
- Lighting design is to be undertaken with minimal visual impact to surrounding areas
- The height design levels of the proposal will not exceed that of the surrounding screening measures such as that provide by the landscape design.

> The detail assessment of environmental issues should also include noise, air quality, sediment control, traffic, safety and the amenity of the site and surrounds.

Transport and Access

> A defined commitment should be included to undertake and fund the necessary road and intersection upgrades.

> Commit to adjusting staff shift times so that they do not overlap with peak hour traffic periods.

> The commitment to undertake an actual truck trip generation survey should be undertake 12 months after the commencement of operations not 24 months.

> A commitment should be made unto the total number of truck trips which will be undertaken on a yearly basis.

> An intersection performance survey should be committed to be undertaken including the cumulative traffic input of adjacent land uses.

> The EA should make a commitment that no empty containers will be taken offsite with the exception of by rail.

Noise and Vibration

> The frequency and timing of the proposed monitoring needs to be defined in the SoC to ensure that adequate monitoring is undertaken throughout the project.

> Specific noise and vibration sensitive design principles should be defined in the SoC rather than just the consideration of these principles.

> The power source, type and quantity of the equipment as well as the projected number of diesel trains should be detailed to ensure assessment and approvals are based on the maximum capacity for the site.

Health

> A commitment should be made to ensure that project design, construction and operations will be undertaken with the objective of minimising health impacts on both the onsite employees and the surrounding community. Appropriate mitigation measures should be defined in order to maintain this objective.

Biodiversity

> Detail mitigation measures need to be included, rather than just vague mitigation measures, which define activities which will be undertaken to protect the biodiversity of the project area along with how these mitigation measures will be enforced.

> A means of monitoring biodiversity, in order to define the level of impacts which have occurred, needs to be defined in the statement of commitments. This should include the methodology and timeframe of the monitoring.

> The use of contingency measures should be included in the statement of commitments to demonstrate the actions which would be undertaken should the monitoring demonstrate excessive impacts to biodiversity. This will provide a transparent process which would be assessable by the relevant agencies.

Hazard and Risks

> Further analysis of offsite infrastructure impacts will be undertaken to ensure that the feasibility and cost impost for any upgrades and/or ongoing maintenance requirements are discussed and agreed with relevant private landowners, agencies and stakeholders.

> A Strategic Project Model and Assessment of Road and Rail Infrastructure should be included, incorporating modelling of the potential impacts of the proposal on the greater road and rail networks, the capacity of the existing infrastructure with in the greater network, maintenance requirements as a result of the proposal increasing use of this infrastructure and a the responsible body for ensuring maintenance is undertaken and funding is available.

> Development of Drivers Code of Conduct and defined induction process should be developed to ensure that offsite incidents and impacts a minimised once trucks leave the project site.

> An independent audit of the Environmental Management System and Event Management System should be undertaken to encourage continuous improvement and to ensure best management practices.

Contamination

> Further assessments should be undertaken within the SIMTA site as the site detail develops, to determine consistency with the past findings and if the proposed development will result in the exposure or required removal of contaminated materials.

Stormwater and Flooding

> Include a commitment to coordinate with MIT on the impacts and associated designs for shared water ways.

> Detailed mitigation measures which will be employed as part of the project should be detailed.

Air Quality

> Ozone and VOC's should be assessed and if necessary added to the monitoring commitments.

> The transportation of refrigerated containers through the site should be identified and relevant monitoring and assessment proposed as necessary.

Heritage

> A commitment to defined and undertake specific monitoring objectives throughout the construction phase of the project to ensure appropriate mitigation measures are employed to protect the surrounding indigenous heritage values.

> Following the inclusion of greater details within the EA regarding the proposed removal or relocation of the WWII heritage, define the protection of these heritage items and ongoing monitoring and management of these structures.

Visual and Urban Design

> Landscape Management Plan design commitments should include the use of a landscape buffer zone along the northern boundary, the type and height of trees to be used within the buffer zones, the maximum height of infrastructure and container stacking within the SIMTA site, and the use of warehouse massing diagrams to define the layout of containers and maximum heights.

Utilities

> Include a commitment which ensures that all works undertaken on rail based utilities is undertaken in consultation with the relevant transport or infrastructure authority.

Consultation

> Details of the CIC should be incorporated including the opening times, location and the ongoing advertisement of the centre.

> Consultation with the ARTC should include negotiations into maintenance and upgrade requirements of the rail network and the relevant funding body for these works.

5 Justification

This section reviews the justification identified to support the proposal and considers whether it is adequate.

5.1 Demand

5.1.1 Summary of changes from 2012 to revised 2013 EA

The following changes are included in the revised EA:

> The NSW Government objective for freight movements by rail has been reduced from 40% at the time of the original EA to 28% by the Draft NSW Freight and Ports Strategy, with the demand modelling undertaken by Hyder to support the revised EA stating that the SIMTA site has the capacity to achieve the 28% reduction.

> Additional information supplied associated with Catchment Demand. The revised EA considers both an 'unconstrained' and 'constrained' scenario within the Freight Demand Modelling. The revised EA notes that the "*unconstrained option is considered to be the least cost option, however, it is not considered to be a realistic scenario. The freight catchment demand analysis confirms that the planned intermodal facility at Moorebank will need to service one million TEU by 2025*" (Urbis, [a], 2013). The potential impacts on freight associated with the SIMTA proposal are identified including:

  - Demand for intermodal terminal facilities exceeds current supply requiring increaseing truck movements into Western Sydney
  - SIMTA would attract a significat proportion of the TEU market (up to 35%), reducing the demand for truck movements from Port Botany
  - By 2016 SIMTA would have the capability to accommodate 500,000 import TEU's per annum
  - By 2025 SIMTA would attract container traffic for the Liverpool area and South western Sydney, as demand would exceed the current capacity of the Minto IMT.

> The revised EA provides additional justification for the rail alignment associated with the Georges River crossing and the Anzac Creek crossing.

> The revised EA includes text from the NSW 2021 plan, which replaces the NSW State Plan (2010).

> The revised EA notes that NSW 2021 identifies the following targets for freight:

  - Enhance rail freight movement
  - Double the proportion of container freight movement by rail through NSW ports by 2020 from 14 to 28 percent (Draft NSW Freight and Ports Strategy: 2012).

5.1.2 Cardno Assessment

Section 3 of the revised EA provides the Strategic and Project Justification. The additional information within Section 3 of the revised EA comprises limited additional consideration of the rail corridor and associated impacts; identification of additional development projects within proximity to the site; as well as consideration of a constrained and unconstrained development scenario within the demand analysis.

The additional information does not provide an additional level of rigor to the previous justification provided in the original EA. Consequently, the following fundamental issues remain:

> SIMTA has failed to include the planned but not approved IMTs in the consideration of its demand analysis. These include the adjoining MIT proposal, which will have a capacity for 1.2 million TEUs per annum for local movements and 0.5 million TEUs per annum for interstate movements, as well as the Eastern Creek proposal, which will have a capacity of approximately 0.5 million TEUs per annum.

> Whilst Port Botany accounts for almost the entire volume of containerized import/export trade throughput in NSW. Most intermodal terminals service both local and interstate trades due to the ability to cover both markets once the infrastructure is established as proposed by the MIT proposal. However, SIMTA's proposal has no mentioned of transfer to rail for inter-state or inter regional delivery, yet this option has not been ruled out.

> SIMTA's demand analysis is based on unpublished data that is impossible to verify.

In addition to the existing issues the following comments are made:

The findings of the revised freight catchment demand analysis undertaken by Hyder state that by 2025, at which point the SIMTA site is proposed to be capable of operating at full capacity, there would be a demand to service 1 million TEUs per annum. The combined SIMTA and MIT capacity is proposed to be 2.7 million TEUs per annum resulting in supply outstripping demand, based on the demand analysis undertaken in the revised EA. The excess supply is likely to lead to a high level of redundancy and an inefficient use of the site and associated resources, or more likely a lowering of fees to attract additional throughput. The additional throughput would create additional wide ranging environmental impacts that are not currently considered by the environmental assessments, which are based on a total TEU through put of 1 million per annum, which is potentially 37 percent less than the actual throughput.

SIMTA's proposal has not been identified in the current planned IMT development program and there is not a rigorous demand justification for the project within the identified timeframe provided, which is a key requirement under the DGRs.

5.1.3 Recommendations

To address the demand justification deficiencies, the following recommendations are proposed:

> Provide evidence demonstrating a commitment from ARTC in relation to the expansionary infrastructure to service the SIMTA site and the funding arrangement.

> Provide the scope and concept design of the expansionary infrastructure and the environmental assessment for such works.

> Undertake further need assessment on the demand for SIMTA's proposal, taking into account the capacity proposed by the MIT and the Eastern Creek projects.

> Undertake research and provide raw data from the existing IMTs showing their capacities and the split between local and interstate freight.

> Provide a business case justification for the SIMTA site that in combination with the MIT site would have a capacity of 2.7 million TEUs per annum, while only servicing a demand for 1 million TEUs per annum.

> Should an appropriate business justification not be available provide a realistic operating capacity for the site once operating at capacity in 2025 and associated environmental assessment.

5.2 Staging

5.2.1 Summary of changes from 2012 to revised 2013 EA

The revised EA identifies a revised staging program, with the following amendments:

> Original EA included the construction of the initial 650m rail siding comprising four tracks within Stage 1. The revised EA does not include rail construction on site, only the rail link to the site.

> The revised EA staging program does not include construction of the onsite rail sidings.

> The original EA aimed to commence construction of Stage 1 in mid-2012, with completion mid-2015.

> The revised EA aimed to commence construction of Stage 1 at the end of 2014, with completion mid-2015 in Section 2.5.3. Section 3.4 of the revised EA proposes the design and construction program commence in early 2015, with completion in mid-2017.

5.2.2 Cardno Assessment

The staging program proposed by the revised EA has been compressed, with Stage 1 construction taking six months, whereas the original EA proposed a three year timeframe for Stage 1. Justification for the substantially reduced timeframe is not provided. Based on the likely extent of civil and structural works proposed it is unlikely that the reduced program is feasible. Consequently, based on the MIT proposal construction timeframe with commencement in early 2015 there would be cumulative impacts associated. The revised EA has not considered concurrent construction and the associated magnification of cumulative impacts as stated in **Section 2.5**.

The staging program within the original EA included construction of the initial 650m of rail siding within Stage 1, which is removed from Stage 1 in the revised EA. The construction of the rail sidings is not identified in the revised EA. It is unclear whether this is a deliberate omission, in which case the actual stage of construction for the rail sidings should be identified along with justification, or an error.

5.2.3 Recommendations

The following recommendations are made to address the project staging:

> Clarify the extent of the Stage 1 construction works

> Provide environmental assessment of construction impacts associated with the concurrent development of both the SIMTA and MIT sites, with the assessment including noise, air quality, sediment control, traffic, safety and amenity of the site and surrounds.

> Clarify the timeframe for construction of the rail sidings.

5.3 Location of SIMTA and other IMT's

5.3.1 Summary of changes from 2012 to revised 2013 EA

Limited additional information is contained within the revised EA at Section 3.3 associated with the location of SIMTA and other existing and proposed IMTs. The primary difference is the inclusion of additional catchment demand information considering an 'unconstrained' and 'constrained' scenario within the Freight Demand Modelling. The implications of this demand modelling are discussed further within **Section 5.2** of this submission.

5.3.2 Cardno Assessment

As discussed at **Section 5.3.1** changes to the revised EA associated with the location of SIMTA in the context of other IMTs and the target market are limited. Consequently, the recommendations contained within the submission to the original EA remain. Furthermore, as discussed in **Section 5.1** inefficiencies and a high level of redundancy are created by the colocation of two IMT's that are proposed to operate in isolation from each other. A more appropriate solution would be to undertake a government led masterplanning process considering both the IMT's within the surrounding land use context, with parties including State Government Departments, Council and the two proponents involved to ensure that the best and most efficient use of the land is achieved.

5.3.3 Recommendations

Cardno is unable to make a full assessment of the SIMTA catchment analysis due to the lack of clarity regarding the data used and unclear assumptions. In order to understand the full implications of SIMTA's assessment, the following additional information is requested and recommendations made:

> There is no information on the source of the base year container distribution data, other than quoting a survey undertaken in March 2000. There is no source of the survey and no indication of the detail, assumptions or methodology of such survey. This information should be provided and the raw data from the survey submitted.

> Using employment data and employment projection to determine container distribution is not considered appropriate without understanding the assumptions behind the original employment projection. It is more appropriate to use the current and future industrial land use data (i.e. current and future zoning) to determine container distribution. Additional analysis of zoning should be undertaken to further derive a pattern of container distribution for the base year and future years.

> No consideration of the MIT proposal and its impact on SIMTA's catchment is provided. The report notes that the Commonwealth proposal is not as advanced as the SIMTA proposal. However, the Eastern Creek IMT, which has not even progressed to a development application stage, is included, illustrating the inconsistency in the assumptions used by SIMTA. A new catchment analysis should be submitted taking into account all planned proposals, including SIMTA, MIT and Eastern Creek.

> The catchment plans and distribution forecast do not include any indications of the truck route assumptions used in the model. It is noted that the model uses the 'most cost effective supply chain' to determine the catchment area of the individual industrial activity. The modelling results and truck routes need to be presented in the additional information submitted by SIMTA, as well as the data behind the model.

> As identified in the traffic assessment in **Chapter 4.1** above, the traffic report has not considered the impacts on the local road network and there is insufficient information to determine the likely truck routes and the potential impacts. This information should be submitted for further consideration of the impacts on local roads.

> A government led master planning process should be undertaken addressing development across both the SIMTA and MIT sites, with both Local and State Government, as well as the proponents involved.

> Based on the revised catchment demand analysis, justification is required for the reasons for co-locating two IMTs at the same location with a total capacity of 2.7 million TEUs per annum. If the demand within the identified catchment does not justify such capacity, the proposal needs to be revised to consider the following alternatives:

- Reduce the capacity of this development to meet the required demand within the appropriate timeframe.
- Consider the opportunities to upgrade or expand the existing IMTs, based on the catchment demand, current and future warehouse distribution and truck movements and undertake appropriate environmental assessment to consider cumulative impacts at this higher level of throughput.

6 Conclusion

This section provides a summary of findings and overall conclusion to the study.

A revised scheme for the Sydney Intermodal Terminal Alliance (SIMTA) project was prepared, with the associated 2013 Environmental Assessment (EA) placed on public exhibition by the Department of Planning and Infrastructure (DP&I) in order to satisfy the designation of the project under Clause 8F(1)(e) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

Liverpool City Council (Council) and its community have raised their strongest objection to the proposal and have raised significant issues about the scale of impacts associated with the development. Council has engaged Cardno to review the revised EA and prepare a submission to DP&I on behalf of Council due to concern regarding the scale of impacts associated with the proposal. This submission to the 2013 EA comprises a review of the EA and supporting documentation to establish the extent of revisions to the previous scheme and to assess the potential impacts in the context of the previous submission. This submission focuses on the key components of the EA including the development scope, standalone and cumulative impact assessment and justification. Additional impacts created by the revised scheme are identified, along with recommended actions to address these measures. Previously submitted comments have been retained or removed depending on whether they have been adequately addressed in the revised scheme.

It is concluded that the revised scheme considered by the 2013 EA and supporting documents does not contain sufficient information to allow a comprehensive assessment of the project, with a key shortcoming being the lack of consideration of cumulative impacts in the context of realistic Twenty-foot Equivalent Unit (TEU) throughput generated by two adjacent intermodal terminals (IMTs). Additionally, the assumptions on which the assessments have been based contain flaws and inconsistencies placing the assessment findings in question. Key shortcomings associated with the project are summarized in the following subsections.

6.1 Scope of Development

> The clear definition and delineation of all off-site infrastructure upgrades and increased maintenance requirements (i.e. road, rail, utilities, re-vegetation), as well as who is responsible for funding and implementing such work requires consideration within the proposal. There is very limited discussion regarding how developer contributions (i.e., Section 94 or 94A plans) would be applied and how any funding contributions would be agreed with key stakeholders such as Council, RMS, ARTC, RailCorp, private landowners etc. This financial risk to third parties has been identified as a key issue and is a significant omission from the current proposal.

> There is limited consideration of the off-site works required to undertake the project in its initial phases. Design of the rail corridor link should avoid or at least minimize impacts on the two threatened plant species. Furthermore, Offset sites have not been identified in the Biodiversity Offset Strategy (BOS) document, although the BOS does include proposed offset policies and three broad offset measures that could be used for in this project. However, Offset Measure A, which has been identified as SIMTA's priority option, relies on obtaining offset land that meets specific criteria to allow the offset biodiversity to flourish, yet the BOS provides no recognition that a suitable offset site is available to offset the clearing proposed by the project.

> The land use on the site is unclear and inconsistent between different reports.

> It is unclear whether there will be refrigerated, frozen materials handling and storage or space heating of warehousing, with fuel consumption and emissions data not provided. Clarification is required to enable thorough assessment of impacts.

> The location, scale and height of the structures on the site is unclear, with the quality and scope of the submitted Concept Plan not containing sufficient information to allow valid assessment of the proposal.

> There is no indicative commitment from the landowners, whose lands will be affected by the off-site works of this proposal, to allow for this development, hence the requirement for the designation of the project

subject to Clause 8F(1)(e) of the EP&A Regulation. The lack of landowner support for the project is a significant risk to the viability of the project given that the proponent does not own the site or the associated rail corridor, both of which are required to allow the proposal to function.

> The timing of the proposal does not align with the existing lease term and there is no indication that the existing tenant will vacate the site to allow the construction of the project to commence in mid-2012.

> The concept design does not take into account the adjoining MIT proposal, with no obvious coordinated design between the two proposals. Cumulative assessment is based on a combined capacity of 1 million TEUs once both the SIMTA and IMT sites are fully operational in 2025, whereas the total design capacity is anticipated to be 2.7 million TEUs per annum. Furthermore, traffic generation is anticipated to be approximately a third higher than proposed in the 2013 EA due to the favorable assumptions used in the modelling. The reduced number of traffic movements would have follow-on impacts for a range of the associated specialist studies including noise, air quality, greenhouse gas (GHG), visual and hazard and risk. Consequently, a review of the assumptions informing the traffic modelling should be undertaken, with the revised trip generation numbers used to update the associated studies.

> Road intersection performance summary tables have not been provided, nor have the network updates incorporated into the Paramics modelling, or the basis for the estimation of 2031 traffic flows. Therefore, the impact of the SIMTA proposal and required road upgrades cannot be accurately substantiated and it is not identified who would pay for the network upgrades and their effectiveness. Furthermore, the proposed MIT facility is not included in the traffic model, which was also requested in the TfNSW submission CD12/05199, point 6.1.

> The Non-indigenous Heritage Assessment does not detail how impacts on items of non-indigenous heritage would be addressed and managed as required by the DGR's. Specifically, the Assessment is lacking a description of how the items of heritage would be addressed and managed and an appropriate level of assessment of the potential impacts. Furthermore, consultation with the relevant Commonwealth heritage body should be undertaken to ensure appropriate management and mitigation measures are identified.

> Prior to the submission of the 2013 EA, 9 additional sites were registered on the Aboriginal Heritage Information Management System (AHIMS) adjacent to the proposed site, which have not been recognised in the Assessment. Due the recent discovery of these sites, the Assessment should be revisited in order to ensure that the Aboriginal significance of the location is adequately assessed, particularly given that two sites are located within areas that will be impacted by the proposed rail road.

> The 2013 EA provides only limited details as to the site layout and design treatments. Consequently, it is difficult to ascertain the extent of visual impacts associated with site construction and operation. The transport, loading and stacking of containers is likely to be a highly visible activity due to their size and colour. The visual assessment does not address container stacking or appropriate treatment. In order to minimize visual impacts sensitive receivers particularly at residences to the north and east should be identified with appropriate management and mitigation measures used including vegetation screening and the limiting of stacking heights.

6.2 Environmental Impact Assessment

> The environmental impact assessments are not based on the full scope of the development and there is limited assessment of the offsite works. Specifically, in relation to the traffic assessments the higher trip generation rates anticipated in the Aurecon report highlights that the potential trip generation could be double that identified within the revised 2013 EA, with the report recommending that the actual trip generation rate be surveyed after 24 months of the SIMTA site opening. Consequently, without confidence of the possible trip generation beyond 24 months of operation, the consent authority may find it appropriate to only approve the first stage of development until development scaling beyond 24 months operation can be confirmed.

> All recommended mitigation measures identified in the impact assessments are not included in the proposed scope of works and the report simply defers these works to the project application stage. Even though this is a Concept Application, the full scope of the development is fundamental to ensure the

project can be delivered as per the applicant's proposal. The lack of information does not allow an appropriate level of impact assessment.

> There is no indication of the proposed routes of truck movements between the warehouses and the intermodal terminal. The environmental impacts resulting from the increase in truck movements on local and regional roads cannot be assessed.

> The proposal appears to have significantly over-estimated the economic and employment benefits of the development and does not consider the current high levels of Defence employment, along with the extensive economic and job creating multiplier effects created for the area through the employment of a large number of Defence personnel, many of whom also reside locally.

> Design of the rail corridor link should avoid or at least minimize impacts on the two threatened plant species including the *Grevillea parviflora subsp. parviflora* and Commonwealth listed *Persoonia nutans.* While the revised EA acknowledges a potentially significant impact on *Persoonia nutans* there appears to have been no changes in the rail alignment through this area to minimize impacts on this listed endangered species. Furthermore, impacts on *Grevillea parviflora subsp. Parviflora* are not identified as significant. However, as 11% of the species is proposed to be cleared it is considered that there would be a significant impact on this species. Accordingly, agency consultation should be undertaken to determine the severity of this impact and the appropriate mitigation measures and offsets required to protect this species.

> There is no consideration of the cumulative impacts as a result of the SIMTA development and other proposed development within the area. The background levels of some air quality pollutants are already high, while the emissions from the SIMTA site alone would not exceed the head room available for new industry, particularly given the other proposed developments in proximity to the site including the MIT and Goodman Fielder proposals, consideration of cumulative air quality impacts is required.

> Analysis of the thresholds for cumulative environmental aspects including Noise, Air Quality, Traffic and Greenhouse Gas should be undertaken to establish the combined development threshold that cannot be exceeded without impact. A combined threshold limit would provide a realistic understanding of the level of development possible without significant impact. These levels would require further research and analysis with the involvement of the applicable government bodies including the EPA, Council and DP&I.

> The appropriateness of the consultation methodology (when taking into account local demographics) is questioned and there is no evidence to show that the issues identified by the public have been addressed in the proposal. The Community Information Centre (CIC) is remotely located with limited opening hours resulting in a low level of community visitation. This is supported by the 2013 EA comments, which state that members of the community have not visited the CIC since the exhibition of the 2012 EA. There has been extensive media coverage associated with the proposal and community opposition, therefore, it is not considered that the lack of visitation equates to a low level of community interest, rather a lack of commitment by the proponent to engage with the community. Furthermore, the extent of community consultation undertaken is not adequate or representative of the community which will be impacted upon by the proposal. The consultation area should be expanded to include the suburbs of Glenfield and Macquarie Fields, which are along the route of Cambridge Avenue and connecting roads that will receive increased traffic as a result of the proposal, as well as the surrounding suburbs of Prestons, Lurnea, Liverpool and Chipping Norton, which are likely to utilize areas which will be impacted by increased traffic flows as a result of the proposal.

> Due to the un-coordinated design between the SIMTA and MIT proposals, the development represents an inefficient use of land and likely redundancy of resources, which is contrary to the objective of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

> The proposed development does not comply with the local planning controls identified by Liverpool Local Environmental Plan 2008. Limited detail is provided in the 2013 EA, therefore it is unclear whether the requirements of the Liverpool Development Control Plan are addressed.

6.3 Strategic Justification

> There is limited environmental, social or economic consideration of the need for two IMTs in one location. The combined SIMTA and MIT capacity of 2.7 million TEUs per annum would result in supply substantially exceeding demand, which is likely to lead to a high level of redundancy and the inefficient use of the site and associated resources, or a lowering of prices to attract additional throughput. Commercial reality would demand the two sites maximise throughput to reach the design capacity resulting in a throughput of approximately 2.7 million TEUs per annum.

> There are no commitments from stakeholders, in particular the ARTC, to allow connection from the site to the SSFL. The current rail network configuration would not be able to accommodate the proposed SIMTA throughput, with ARTC advising that appropriate investment on expansionary infrastructure is required. Detailed modelling is required to ensure that the rail network has the capacity to accommodate the additional freight movements proposed, as the rail network upgrades identified are not adequately justified by network analysis.

> The location of two IMTs on adjacent land results in cumulative impacts and the duplication of infrastructure including the provision of two rail spur lines; sidings; warehousing; access roads; and services provision. Duplication and associated redundancy would lead to the inefficient use of resources and unnecessary disturbance of land for no net gain, while increasing overall environmental impacts. It would be more appropriate to identify a second IMT site to service a separate freight catchment, providing a higher level of service with reduced environmental impacts.

> There is limited assessment on the volume of container import/export within the Liverpool catchment area and there is limited evidence to justify the proposed 1.0 million TEU. The methodology for the catchment demand analysis is inappropriate and there is no evidence to show that there is sufficient demand in the catchment to support two IMTs in Moorebank.

> There is no consideration of an alternative design or proposal, either by expanding the existing IMTs in Sydney or by combing the SIMTA and MIT proposals to address the demand.

7 References

This section identifies the sources used within the study.

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